

a heart rate of 150 beats/min with a systolic blood pressure of 90 mm Hg. Blood glucose was 8 mmol/l on bedside testing. Electrocardiography showed a left bundle branch block pattern and a provisional diagnosis of acute myocardial infarction was made. Intravenous diamorphine and diazepam were given as the patient was proving impossible to restrain.

Further examination revealed a ragged occipital laceration, a Glasgow coma score of 7 with equal reactive pupils, and no evidence of a motor deficit. Both plantar responses were noted to be extensor. On questioning his relatives revealed that he had undergone coronary artery bypass surgery 10 years previously and was on long term warfarin treatment.

Since he had evidence of an acute head injury with significantly altered level of consciousness, urgent computed tomography of his head was performed. This revealed an occipital fracture with contra-coup contusion in the right temporoparietal region.

Discussion

Increasing numbers of patients are successfully resuscitated following prehospital cardiac arrest.¹ Aftercare of these patients tends to focus on the medical aspects of the postarrest phase. Associated trauma owing to cardiopulmonary resuscitation is a well recognised phenomenon.²⁻³ Not so well recognised is coincidental injury arising as a result of the sudden syncope and fall seen in cardiac arrest. As seen in these cases, this may cause severe head and neck injury.

It is well recognised that the presence of ankylosing spondylitis predisposes to cervical cord injury after minor trauma.⁴ Similar injuries to the cervical cord after apparently minor trauma have also been described in

patients with rheumatoid arthritis.⁵ This has profound implications for the prehospital and in hospital care of these patients. When sudden syncope and fall occurs in a patient with an "at risk" cervical spine, full neck immobilisation should be applied. Where no past medical history is available and signs of cranial trauma are evident, immobilisation should be applied as a precaution. Removal of this immobilisation should not be attempted until the cervical spine has been cleared by adequate imaging and normal neurological examination.

In the postarrest phase, a persisting obtunded conscious level may be attributed to hypoxic brain injury. Cases 2 and 3 show that signs of cranial trauma should raise the suspicion of direct brain injury, and computed tomography should be done. This is particularly important in patients who are on anticoagulants.⁶

In this group of patients the importance of taking a complete medical history and recording the circumstances of the syncopal episode cannot be overemphasised. If cardiac output is successfully restored the possibility of occult traumatic injury must be considered in high risk patients.

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Ectopic pregnancy presenting with obturator nerve pain

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Accepted for publication
14 January 1998

Abstract

A 27 year old woman had a three day history of pain in the cutaneous distribution of the left obturator nerve before she developed the classical picture of ectopic pregnancy with lower abdominal pain and vaginal bleeding. A left tubal pregnancy was subsequently confirmed by laparoscopy. Referred pain along the obturator nerve has been reported in other pelvic conditions, but has not previously been reported as a manifestation of ectopic pregnancy. Ectopic pregnancy may present with a very wide range of signs and symptoms and should be excluded in females of child bearing age with unex-

plained symptoms including pain anywhere from the shoulder down to the knee. (*J Accid Emerg Med* 1998;15:192-193)

Keywords: ectopic pregnancy; obturator nerve; referred pain

Case report

A 27 year old woman presented to the accident and emergency (A&E) department with a two day history of pain on the inner aspect of the left thigh, which later radiated to the left groin. There was no history of trauma. She had stopped taking the contraceptive pill one month before and her last menstrual period had been eight weeks' ago.

On examination her vital signs were normal. The abdomen was soft, with no masses or tenderness and no herniae. There was a small non-tender lymph node in the left groin. The vulva was normal with no external signs of inflammation or abscess (vaginal examination was not performed in A&E). Hip movements were normal and did not exacerbate the pain. Neurovascular examination of the lower limbs was normal. There was slight breast tenderness and pregnancy was confirmed by a urine test (Q Beta HCG Test, Quadratec). The patient was admitted to the surgical ward for observation and the following day developed some vaginal bleeding and was noted to have mild tenderness over the left iliac fossa. The pain in her thigh had disappeared. The patient was referred to a gynaecologist who found bleeding through the cervix during vaginal examination, with no tenderness and no palpable masses. Ultrasound examination showed no evidence of intrauterine pregnancy, but a suspicion of an adnexal mass adjacent to the left ovary. A laparoscopy was performed which revealed tubal pregnancy which was treated by a salpingotomy and suction irrigation. The patient made an uneventful recovery.

Discussion

The presentation of ectopic pregnancy may be acute, silent, or subacute. The acute presentation is associated with tubal rupture and massive intraperitoneal haemorrhage causing acute abdominal pain and cardiovascular collapse. Silent ectopics are occasionally detected during routine ultrasound or antenatal clinic examination which may elicit localised tenderness and swelling in one fornix. In the subacute form the first feature is usually pain (95% of cases) and amenorrhoea followed by vaginal bleeding (75% of cases),¹ but diagnosis of ectopic pregnancy is sometimes difficult on clinical grounds because of the varied presentation. The clinical triad of amenorrhoea, abnormal vaginal bleeding, and lower abdominal pain often raises the suspicion of the diagnosis. There are, however, instances where one or other feature of the triad may be absent.² Sometimes ectopic pregnancy presents with an unusual clinical picture, for example lower gastrointestinal haemorrhage,³ simultaneous bilateral tubal pregnancy,⁴ acute tubal pregnancy with negative pregnancy test,⁵ or referred pain due to intraperitoneal blood (pain in the shoulder or perineum secondary

to irritation of diaphragm or pouch of Douglas, respectively), but referred pain in the distribution of the obturator nerve as a sign of ectopic pregnancy has not been described previously. The ovary and tube lie on the peritoneum of the side wall of the pelvis in the shallow ovarian fossa, in the angle between the internal and external iliac vessels, overlying the obturator nerve.⁶ The parietal peritoneum, against which the ovary lies, is supplied by the obturator nerve. A diseased ovary (and tube) may therefore cause referred pain along the cutaneous distribution of this nerve.⁷ Such pain has been recorded in many other pelvic conditions, for example endometriosis,⁸ retroperitoneal haemorrhage,^{9,10} retroperitoneal space occupying lesions,¹¹ aneurysm of the hypogastric artery,¹² and obturator hernia.¹³

This case illustrates the need to consider ectopic pregnancy in females of reproductive age presenting with unexplained symptoms including pain anywhere from the shoulder down to the knee.

I gratefully acknowledge the help of Dr S Mardel OBE, FRCSEd (A&E), Furness General Hospital, in preparing this report.

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